

Gulf Coast Ecosystem Restoration Council

FPL 3b Internal Best Available Science Review Panel
Summary

July 2020

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Introduction

On Tuesday, June 30, and Wednesday July 1, 2020 the RESTORE Council convened the Funded Priorities List (FPL) 3b Internal Best Available Science (BAS) Review Panel. The purpose of this internal panel was to use Council member-agency expertise to address external BAS review comments provided for FPL 3b submitted project/program proposals, and potentially identify project/program synergies not identified prior to proposal submission. The ultimate goal of the panel was to provide Council members with substantive best available science content to inform their decision-making.

The internal panel was convened via webinar with representatives from each of the Council's eleven member agencies present. Each BAS Panel member was provided the following:

- 1) Full FPL 3b proposals
- 2) 3 external BAS reviews for each proposal
- 3) Summary of external BAS reviews for each proposal
- 4) Proposal Sponsor's response to the BAS reviews summary
- 5) Any proposed revisions to the proposal

Proposal sponsors provided a brief synopsis of their proposal to the panel, a summary of comments made in external reviews, and discussed their proposed response to the external reviews. Council staff then solicited feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns. Council staff also solicited feedback on any existing or future synergies with other Gulf restoration activities. The proceedings of the meeting are summarized in this document.

FPL 3b Proposal Panel Comments

Sponsor: Alabama

Enhancing Hydrologic Connectivity in Justin's Bay (Planning)

Justification: Proposal does not explicitly make the connection between the necessity of planning and pre-assessment as an element of a successful project that will benefit water quality.

- The BAS Panel agrees that Alabama has appropriately addressed this comment.

Milestones: Identify project milestones.

- The BAS Panel agrees that Alabama has appropriately addressed this comment.

Risks: Evaluation of risks such as climate change and increased traffic due to coastal development should be considered in the planning stage of the project.

- The BAS Panel agrees that Alabama has appropriately addressed this comment.

Future steps: Discuss future work that would be expected to occur (outside of the proposed project) once preliminary design is completed.

- The BAS Panel agrees that Alabama has appropriately addressed this comment.

Coordination: Reviewer is interested to see how this project builds on NEP work in the same watershed. The proposal references an older NEP document, but it would be important to know how the applicant could leverage NEP data/work.

- The BAS Panel agrees that Alabama has appropriately addressed this comment.

Other: A panelist requests clarification as to how the fine scale evaluation of sediment will be conducted.

- Alabama response: Grab samples will likely be utilized. Additional details will be provided at the application stage if the proposal is funded.

Panel comments on existing or future synergies with proposed activity:

Panel members had no further comments on proposal synergies.

Coastal Alabama Regional Water Quality Program

Justification: Provide additional information on local water quality trends and data.

- The BAS Panel agrees that Alabama has appropriately addressed this comment.

Metrics: Provide additional detail on the types of water quality metrics that would be evaluated.

- The BAS Panel agrees that Alabama has appropriately addressed this comment.

Coordination: Discussion of the Mobile Bay National Estuary Program watershed management plans and projects identified within those plans would strengthen the proposal.

- The BAS Panel agrees that Alabama has appropriately addressed this comment.

Lessons learned: Discuss success and evaluation of similar past efforts. Compiling information from similar projects in the region could provide information on lessons learned.

- A panelist suggests that providing an example of a successfully implemented water quality improvement project in Alabama could further strengthen the proposal.
- Alabama response: A number of projects are underway but not at 100% completion. Additional detail on the number and types of projects will be added to the proposal as well as language around the types of projects that have recently been completed by minimalities/wastewater authorities in the area.

Methodological details: The technical advisory committee is highlighted as a great addition to this process but a better definition of the committee composition is suggested to ensure representation of expertise in science of each of the water quality stressors. Provide additional detail on methods.

- A panelist suggests that though project selection criteria are not yet determined, describing examples of potential criteria that could help recommend a particular project could be helpful.
- Alabama response Additional language will be added to more explicitly make the link between the information that will be required in proposals and how that information will inform project selection.

Panel comments on existing or future synergies with proposed activity:

Panel members had no further comments on proposal synergies.

Perdido Watershed Water Quality Improvements and Restoration Assessment Program

References: There is additional literature related to project evaluation and assessment that is not utilized in this proposal.

- The BAS Panel agrees that Alabama has appropriately addressed this comment.

Justification: Include more data on environmental trends in the proposal.

- The BAS Panel agrees that Alabama has appropriately addressed this comment.

Risks: Including projects that will be evaluated and preliminary data will allow for a better assessment of risk.

- The BAS Panel agrees that Alabama has appropriately addressed this comment.

Statistical methods: Discuss risk of being unable to detect change in ecosystem due to complexity of ecosystem/stressors, etc.

- The BAS Panel agrees that Alabama has appropriately addressed this comment.

Coordination: Discuss integration with NEP watershed management plan.

- The BAS Panel agrees that Alabama has appropriately addressed this comment.

Methodological details: Details on participants/scientific team would provide more clarity to the process.

- Panelists appreciate that composition of the team will include cross-state and federal membership, allowing partners to benefit from this work.
- The BAS Panel agrees that Alabama has appropriately addressed this comment.

Other: A panelist requests clarification as to how the objectives of this proposal differ from those of the Coastal Alabama Regional Water Quality Program.

- Alabama response: The Coastal Alabama Regional Water Quality Program identifies specific water quality techniques that can be applied to attain project-level water quality benefits through “dirt-turning” projects. This proposal focuses on a combination of water quality and habitat benefits that can be attained at the watershed scale, and includes development of conceptual models, a restoration assessment framework, and a suite of

indicators that could be used for decision-making and evaluation of watershed benefits.

Panel comments on existing or future synergies with proposed activity:

Implementation of this proposal would assist an EPA-sponsored estuary program through synergy with that work. There are also synergies with the EPA Baseflow project. In addition, participation on the proposed scientific team would allow partner agencies to benefit from this work.

Sponsor: USDA

Cote Blanche Freshwater and Sediment Introduction and Shoreline Protection

Feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns:

References: Address references that were not properly cited or included.

- Although panelists felt the addition of the Bibliography helped to address this BAS concern, panelists also felt that inclusion of the references within the text of the narrative would further strengthen the proposal, and better address this concern.
- USDA agrees to revise the proposal to include additional in-text citations.

References: Justify the proposal throughout using additional peer-reviewed references:

- Panelists suggest sources of additional scientific evidence that may be useful for further strengthening the proposal.
- USDA agrees to consider additional references for inclusion in the proposal.

References: Include citation of the information used to formulate the scientific reasoning in the objectives section.

- Panelists suggest sources of additional scientific evidence that may be useful for further strengthening the proposal.
- USDA agrees to consider additional references for inclusion in the proposal.

Lessons learned: Add evaluation of similar efforts.

- Panelists suggest sources of additional scientific evidence that may be useful for further strengthening the proposal.
- USDA agrees to consider additional references for inclusion in the proposal.

Comment: Describe how project data metrics will be achieved.

- The BAS Panel agrees that USDA has appropriately addressed this comment.

Comment: Provide more detailed discussion around possible risks and uncertainties.

- Although panelists feel the revisions helped to address this BAS concern, the panelists raise additional strategies for addressing risks, such as looking to past successes and lessons learned from implementation of similar projects in the area of Cote Blanche.
- One panelist also questions whether there is a risk of funding a planning project without existing implementation funds, and asks whether implementation risks should be considered at this stage.

- USDA agrees to consider additional references and discussion of risks and uncertainties, such as securing implementation funds, for inclusion in the proposal.

Panel comments on existing or future synergies with proposed activity:

Panel members had no further comments on proposal synergies.

Gulf Coast Conservation Reserve Program

Feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns:

References: Include additional peer-reviewed references and publications.

- Although panelists feel the addition of the Bibliography helped to address this BAS concern, panelists also feel that inclusion of the references within the text of the narrative will further strengthen the proposal, and better address this concern.
- USDA agrees to revise the proposal to include additional in-text citations.

Justification: Discuss rationale for the application of specific techniques used to identify, select, process, and analyze information for conservation planning.

- Panelists feel that inclusion of the references within the text of the narrative will further strengthen the proposal, and better address this concern.
- The BAS Panel agrees that USDA has appropriately addressed this comment.

Environmental benefits: Justify validity of the proposed environmental benefits.

- Panelists feel that inclusion of the references within the text of the narrative will further strengthen the proposal, and better address this concern.
- USDA agrees to revise the proposal to include additional in-text citations.

Risks and uncertainties: Outline risks and uncertainties.

- Panelists feel that inclusion of the references within the text of the narrative will further strengthen the proposal, and better address this concern.
- The BAS Panel agrees that USDA has appropriately addressed this comment.

Panel comments on existing or future synergies with proposed activity:

Panel members had no further comments on proposal synergies.

Apalachicola Regional Restoration Initiative

Feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns:

Tracking success: Concerns are raised about whether the proposal identifies a monitoring strategy that will support the measurement of project success and prevent double counting.

- The BAS Panel agrees that USDA has appropriately addressed this comment.

Tracking success: Concerns are raised over how outcomes will be measured.

- The BAS Panel agrees that USDA has appropriately addressed this comment.

Environmental benefits: Clarification is requested on how management activities will be implemented such that they can achieve benefits at the scale of 250,000 acres.

- The BAS Panel agrees that USDA has appropriately addressed this comment.

Risks and uncertainty: Address short-term uncertainty inherent in working with private landowners and changes in the timber market (e.g., declines in timber value, conversion from timber to hemp), and long-term risks from sea level rise.

- The BAS Panel agrees that USDA has appropriately addressed this comment.

Panel comments on existing or future synergies with proposed activity:

Implementation of this proposal would create synergies with \$60 million worth of NFWF GEBF investments in land acquisition, oyster restoration, and hydrological restoration in this watershed.

Enhancing Gulf Waters Through Forested Watershed Restoration

Feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns:

Metric targets: Additional information is requested on how targets were selected.

- The BAS Panel agrees that USDA has appropriately addressed this comment.

Efficiencies: Additional details are requested on how the different proposed methods would be integrated to achieve cost-effectiveness.

- The BAS Panel agrees that USDA has appropriately addressed this comment.

Methodological details: Clarification is requested on how spatial variability is taken into account for method selection.

- The BAS Panel agrees that USDA has appropriately addressed this comment.

Justification: Expanded discussion is requested on the impact of forest restoration on streamflow and hydrologic cycle.

- The BAS Panel agrees that USDA has appropriately addressed this comment.

Adaptive management and outreach: Describe how the SWAT will be used to facilitate adaptive management and help involve private landowners.

- The BAS Panel agrees that USDA has appropriately addressed this comment.

Panel comments on existing or future synergies with proposed activity:

The proposed program would be able to leverage previous RESTORE investments by using data from the FPL1 Baseline Flow project to calibrate the SWAT model.

Sponsor: DOC/NOAA

Gulf of Mexico Coast Conservation Corps (GulfCorps) Program

Feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns:

Risks: Coronavirus could affect the ability of GulfCorps to complete its work. Protocols for Coronavirus prohibit groups which could interfere with many aspects of the program.

- The BAS Panel agrees that NOAA has appropriately addressed this comment.

Adaptive management: It would be helpful to see the adaptive management framework and timeline for analyzing monitoring data to further understand plans for tracking and responding to risk.

- The BAS Panel agrees that NOAA has appropriately addressed this comment.

Justification: Specific criteria such as 'cost effectiveness' or 'scientifically sound' are not directly called out in the proposal when discussing methods/techniques.

- The BAS Panel agrees that NOAA has appropriately addressed this comment.

References: Provide the most recent evidence-based sources for statements made in proposal.

- The BAS panel agrees that the response NOAA has indicated will appropriately address this comment.

Lessons learned: How can partners address past programmatic challenges?

- The BAS Panel agrees that NOAA has appropriately addressed this comment.

Outreach: How will the applicant plan to engage low-income and low-opportunity populations?

- The BAS Panel agrees that NOAA has appropriately addressed this comment.

Coordination: How will this program collaborate with the "Tribal Youth Coastal Restoration Program" proposed by the U.S. Department of the Interior, Bureau of Indian Affairs (DOI BIA)?

- The BAS Panel agrees that NOAA has appropriately addressed this comment.

Other: How will metrics be used to track benefits such that double-counting of acreage will not occur?

- NOAA response: Each project's scope of work/activity list is matched with corresponding techniques, training needs, RESTORE metrics (acres), and monitoring metric codes prior to the team starting the restoration work.

Acreage is linked to techniques as it is recorded while activities are being implemented and verified through our internal QA/QC process.

Panel comments on existing or future synergies with proposed activity:

Panel members had no further comments on proposal synergies.

Sponsor: Florida

FL Gulf Coast Resilience Program

Feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns:

Site selection: Additional details are needed on the science-based decision-making process used to select project sites.

- The BAS panel agrees that Florida has appropriately addressed this comment.

Program benefits: Clarify language describing sea level rise, storm surge, and waves throughout the proposal, in particular with regard to how natural habitat restoration promotes long-term resiliency to sea level rise (rather than storm surge).

- The BAS panel agrees that Florida has appropriately addressed this comment.

References: Include literature to support information on vulnerability assessments.

- The BAS panel agrees that Florida has appropriately addressed this comment.

Justification: Add further justification for the program and why it is needed to counteract current losses or impacts.

- The BAS panel agrees that Florida has appropriately addressed this comment.

Metrics, outcomes, and data management: Add more information on the monitoring and data management strategy, clarifying the connection between environmental metrics and outcomes related to increased resilience, and use of PRM010 to track vulnerability assessments.

- The BAS panel agrees that Florida has appropriately addressed this comment.

Risks: No socioeconomic risks were discussed.

- The BAS panel agrees that Florida has appropriately addressed this comment.

Past experience: More information is needed on Florida's experience with the proposed activities, as well as an evaluation of past successes and failures of similar efforts, and the role of the Chief Resiliency Officer in the decision-making process.

- The BAS panel agrees that Florida has appropriately addressed this comment.

Program benefits: Clarify the intended outcomes and benefits, while emphasizing stakeholder involvement and a focus on communities that are most at risk or where vulnerability assessments have not been conducted previously.

- The BAS panel agrees that Florida has appropriately addressed this comment.

Other: Will other lands be considered for land acquisition under this program?

- Florida's response: Yes, lands other than Florida Forever Climate Change Lands meeting the program's selection criteria would be considered for acquisition.

Panel comments on existing or future synergies with proposed activity:

The proposed program has potential for synergy with the proposed Perdido Water Quality Improvement and Vulnerability Assessment program.

Florida Gulf Coast Tributaries Hydrologic Restoration Program

Feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns:

Risks: There could be more discussion of risks contained within the supporting literature.

- The BAS panel agrees that Florida has appropriately addressed this comment.

Lessons learned: Successes or failures of existing programs were not directly mentioned in the proposal.

- A panelist raised an alternative interpretation of this comment, and suggested how it might also be addressed.
- Florida response: Florida will follow-up with the panelist to discuss this interpretation.
- The BAS panel agrees that Florida has appropriately addressed this comment.

Project solicitation: The program methods did not describe how projects will be solicited and what organizations will develop them.

- The BAS panel agrees that Florida has appropriately addressed this comment.

Groundwater flows: Groundwater flow was not addressed in the proposal but plays a substantial role in freshwater discharge due to there being limited surface water runoff in the Big Bend region south to Tampa Bay.

- The BAS panel agrees that Florida has appropriately addressed this comment.

Other: A panelist shared appreciation for the statement in the proposal that the final project list and workplans will be submitted to Council staff for BAS review and approval. The panelist suggests that all FPL 3 program proposals include such language regarding BAS review.

Panel comments on existing or future synergies with proposed activity:

Panel members had no further comments on proposal synergies.

Florida Water Quality Improvement Program Proposal

Feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns:

References: Additional peer-reviewed scientific references are needed to support the proposal.

- The BAS panel agrees that Florida has appropriately addressed this comment.

Justification: More scientific justification is needed for (or against) specific approaches and goals; clarification of goals, objectives, and outcomes; relative priority of benefits to public works infrastructure vs. environmental restoration.

- The BAS panel agrees that Florida has appropriately addressed this comment.

Methods: Additional justification requested for proposed methods; more specificity requested in describing selection criteria; and suggested summarizing proportion: 1) of excess nutrients from sources by HUC, 2) that could be removed by acreage, and 3) of funding by project type.

- The BAS panel agrees that Florida has appropriately addressed this comment.

Risks and Uncertainties: More information is needed on scientific risks and uncertainties, long-term risks, risk and benefits of proposed activities and methodologies, and risk of disadvantaged communities.

- The BAS panel agrees that Florida has appropriately addressed this comment.
- Panelist suggested inclusion of language from FL's response to the BAS comments regarding risk and uncertainties in the full proposal.

Overall Program Targets and Metrics of Success: Targets for the program could be developed to assist with project selection. There is concern for the fact that the program metric relates to septic to sewer improvements.

- The BAS panel agrees that Florida has appropriately addressed this comment.

Panel comments on existing or future synergies with proposed activity:

The additional water quality programs being proposed offer potential for synergies across RESTORE Council water quality improvement programs.

Florida Strategic Gulf Coast Land Acquisition Program Proposal

Feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns:

Site selection: Further emphasis should be placed on Florida Forever's use of science-based processes for choice of lands.

- The BAS panel agrees that Florida has appropriately addressed this comment.

Program benefits: Clarify language, in particular regarding benefits to natural habitat restoration being primarily for long-term resiliency to sea level rise (rather than storm surge), and add peer-reviewed citations on sea-level rise.

- The BAS panel agrees that Florida has appropriately addressed this comment.

Risks, uncertainties, and mitigation: The proposal evaluates uncertainties and risks in achieving its objectives over time, but adding more on intrinsic and direct risks, as well as a mitigation plan, is suggested.

- The BAS panel agrees that Florida has appropriately addressed this comment.

Past experience: A more detailed evaluation of successes and failures from the Florida Forever program could be incorporated to guide the proposed procedures.

- The BAS panel agrees that Florida has appropriately addressed this comment.

Justification: Include additional discussion to justify land acquisition as a preferred method to achieve the proposed benefits.

- The BAS panel agrees that Florida has appropriately addressed this comment.

Monitoring and adaptive management: More information is needed on a monitoring and adaptive management strategy that will support measures of success.

- The BAS panel agrees that Florida has appropriately addressed this comment.

Metrics: Remove or clarify the acres under improved management metric or add additional environmental metrics.

- The BAS panel agrees that Florida has appropriately addressed this comment.

Other: What sort of coordination is planned with Federal tribes?

- Florida response: The Florida Forever process includes opportunity for engagement through the nomination of projects and publicly noticed meetings that encourage public comment. During the Florida Forever project evaluation process an analysis of cultural resources is conducted.

Panel comments on existing or future synergies with proposed activity:

The proposed program has potential for synergy with the proposed Perdido Water Quality Improvement and Vulnerability Assessment program.

Mississippi

Coastal Nearshore Habitat Restoration and Development Program in Mississippi

Feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns:

Citations: Include additional peer-reviewed and publicly available literature to incorporate links to existing bodies of knowledge and gaps that may exist within them.

- Panelists point out that the NOAA RESTORE science program put together a living shoreline suitability tool that could be a helpful resource for this and other proposed projects/programs.
- Mississippi response: Site selection for Coastal Nearshore Habitat Restoration will be driven by a number of factors including existing planning efforts, existing restoration sites, and other logistical and regulatory constraints. Mississippi could consider referencing this tool as part of the development of restoration activities for a selected site.
- The BAS panel agrees that Mississippi has appropriately addressed this comment.

Methodological details: Include a detailed map.

- The BAS panel agrees that Mississippi has appropriately addressed this comment.

Monitoring and adaptive management: Include a MAM plan.

- The BAS panel agrees that Mississippi has appropriately addressed this comment.

Goals and objectives: Include more details on goals and objectives.

- The BAS panel agrees that Mississippi has appropriately addressed this comment.

Other: Panelists ask whether additional metrics such as acres restored and acres of erosion prevented would be considered.

- Mississippi response: Acres restored has been included in the revised proposal. Due to uncertainty and difficulty separating project effects from background process, acres of erosion prevented was not included. Conversations around potential metrics and measures will continue with Council staff through the development of FPL 3b as well as during development of the resulting program applications.

Panel comments on existing or future synergies with proposed activity:

One panelist highlighted that the Mississippi Master Plan for Beneficial Use was cited in the proposal and something that could be explored further, and synergistically built upon. Mississippi reviewed the proposal to see where the Master Plan is discussed. The master plan as well as several other planning documents are referenced throughout the proposal (abstract, methods). The master plan was improved upon through planning under the NFWF-GEBCF as well as FPL BU project and in coordination with partner agencies will leverage coastal restoration sites.

Water Quality Improvement Program for Coastal Mississippi Waters**Feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns:**

Citations: Include more recent data and sources.

- The BAS panel agrees that Mississippi has appropriately addressed this comment.

Methodological details: Include more details on method selection.

- The BAS panel agrees that Mississippi has appropriately addressed this comment.

Goals and objectives: Include more details on goals and objectives.

- The BAS panel agrees that Mississippi has appropriately addressed this comment.

Monitoring and adaptive management: Include more details on adaptive management.

- The BAS panel agrees that Mississippi has appropriately addressed this comment.

Data management: Include more details on data management strategy.

- The BAS panel agrees that Mississippi has appropriately addressed this comment.

Techniques: Include land acquisition as a method for water quality improvement.

- The BAS panel agrees that Mississippi has appropriately addressed this comment.

Other: Mississippi indicates their desire for the proposed water quality improvement program to use metrics and parameters that are consistent with those used by other RESTORE-funded water quality programs across the Gulf.

- All panelists with such proposals concur.

- Council Staff note that the Mississippi BAS responses for this proposal regarding metrics do not capture the revisions to the proposal that have been made to include the additional project-level water quality metrics.
- Mississippi response: Mississippi has revised BAS responses to be consistent with proposal revisions.

Panel comments on existing or future synergies with proposed activity:

Mississippi, Florida, Alabama, and Texas agree that synergies can be fostered between the proposed water quality improvement programs across these states, such as by adopting shared metrics, measures, and monitoring methodologies.

Texas

Texas Land Acquisition Program

Feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns:

Monitoring and data management: More information is needed about monitoring and data management strategies.

- The BAS panel agrees that Texas has appropriately addressed this comment.

Monitoring budget: No funds are allocated to monitoring in the budget.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Monitoring and adaptive management: Additional details are requested on the monitoring plan, with environmental parameters and links to a comprehensive adaptive management or decision-making structure.

- The BAS panel agrees that Texas has appropriately addressed this comment.

Uncertainties: More information is requested regarding uncertainties beyond the control of the State of Texas and uncertainty/risk over time is needed.

- The BAS panel agrees that Texas has appropriately addressed this comment.

Land acquisition risks: Additional discussion is suggested for risks related to land acquisition- such as inflation of real estate prices and land loss.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Public ownership risks: It is suggested that given the relative risk of state land ownership versus private, non-profit entities through transfer, there should be a science-based discussion around how private transfer suits the public interest of the citizens of Texas.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Risk mitigation: While a number of strategies to mitigate short-term risks are discussed, there is no mitigation plan.

- The BAS panel agrees that Texas has appropriately addressed this comment.

Long-term risks: It is suggested more information is needed to describe the program's vulnerability to long-term environmental risks.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Risk characterization: It is recommended to reword the statement on page six that begins “There is a slight risk that the acquired land will be affected....”, based on the fact that the risk for these areas is high, particularly the ones on the eastern portion of the coast.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

References: Additional references are requested to support the statement on page 6 that, “risks could be overcome”.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Past experience: Clarification is requested on TCEQ’s specific role in past land acquisition work.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Lessons learned: It is suggested that the discussion of both past successes or failures should evaluate these elements in a manner where they could be used to guide proposed procedures.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Panel comments on existing or future synergies with proposed activity:

As highlighted by Texas during their discussion of the proposal, the proposed program could make use of the previously-funded RESTORE Council FPL 1 Strategic Conservation Assessment for Gulf Lands (SCA) tool as a valuable resource to augment the process of identifying opportunities for land acquisition.

Chenier Plain Ecosystem Restoration Program

Feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns:

References: Providing additional scientific references and data is suggested.

- A panelist notes that when Texas provides additional references, that corresponding in-text citations should also be included.
- Texas response: Texas concurs, and will ensure all new references are cited both in-text and in the bibliography.
- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Site selection process: It is recommended that the discussion of the site selection process be clarified by including a table that outlines final sites, existing conditions, and proposed activities

- The BAS panel agrees that Texas has appropriately addressed this comment.

Methodological details: Fully describing the siphon installation listed in the proposed methods is recommended.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Justification: Additional information is requested describing the response rate of public surveys to demonstrate the extent of public input.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Past experience: It is suggested that additional details be included to expand on the TCEQ's experience in implementing a similar program to that being proposed.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Collaboration: Clarifying information about project partners in the proposal is suggested.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Evaluation of success: It is recommended that the environmental benefits discussion be developed to further describe methods of evaluating that a shoreline has attained "improved quality".

- The BAS panel agrees that Texas has appropriately addressed this comment.

Monitoring duration: It is recommended that conflicting statements regarding monitoring be clarified in the proposal: “Monitoring is planned to be conducted for 2 years after project completion, but the program “will require long term monitoring” (p. 8).”

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Data-mining: It is suggested that while the repository aspect of data management was well-described, a discussion of data mining should be included.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Long-term risks: Strengthening the discussion of long-term risk is suggested, with information about the longevity of and/or need for periodic replenishment of dredged materials.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Additional risks: It was suggested that the proposal does not fully evaluate risks, and that the proposal authors should consider the use of “sandflat algal restoration- as these do survive hurricanes.”

- The BAS panel agrees that Texas has appropriately addressed this comment.

Short-term risks: More information is requested to fully evaluate short-term implementation risks.

- The BAS panel agrees that Texas has appropriately addressed this comment.

Risk mitigation: While potential conflicts with adjacent landowners was discussed as a risk, a mitigation strategy should be provided.

- The BAS panel agrees that Texas has appropriately addressed this comment.

Unintended consequences: It is suggested that the discussion of short-term risks be expanded to include risks associated with impacts from the program itself.

- The BAS panel agrees that Texas has appropriately addressed this comment.

Lessons learned: Additional information about the past successes and failures of similar efforts would strengthen the proposal’s discussion of risks and uncertainties.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Panel comments on existing or future synergies with proposed activity:

Chenier Plain is a focal point, with potential convergence of many different techniques appropriate for meeting restoration needs. For this reason, there could be synergies between,

for example, three different projects under three different Texas proposed programs occurring in the Chenier Plain.

Shoreline Protection Through Living Shorelines Program

Feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns:

References: Additional resources might be found from the North Carolina Sounds, Delaware Bay, and Chesapeake Bay Region from the Maryland Department of Natural Resources and the Virginia Institute of Marine Science.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Lessons learned: Evaluating the successes and failures of similar projects should be more developed in the proposal.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Long-term monitoring: Demonstrating success will require long-term monitoring and recommends monitoring of non-native Phragmites invasion of projects.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Long-term monitoring: The program would benefit from before and after testing and 4 years is insufficient time to monitor success or failure.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Tracking success: Comments suggest that the program lacks the detail for measuring success and no long-term monitoring is included in the proposal; and suggest that x miles of restored habitat is not the same as x miles of highly functional habitat.

- The BAS panel agrees that Texas has appropriately addressed this comment.

Implementation strategy: Shoreline erosion may be too far along for a phased implementation approach and recommends that the design also include Geotech.

- The BAS panel agrees that Texas has appropriately addressed this comment.

Methodology: The program should consider the use of benthic algal mats in hypersaline portions of the coast where vascular plants will not grow well.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Site selection: The proposal should provide more information on the criteria for selecting sites, and a summary table of the potential sites would be helpful.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Past experience: Provide more information on the applicant's experience in implementing similar programs and provide more details on possible partnership with NGOs with Living Shoreline project experience.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Short-term risks: More information is needed on short-term implementation risks and uncertainties including how the rapidly expanding armoring of shorelines will affect the Living Shorelines and how the Living Shorelines will affect the armoring.

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Panel comments on existing or future synergies with proposed activity:

Panelists highlighted the existence of several tools that could support this program, such as the NOAA RESTORE Act Science Program Living Shoreline Tool and the Texas General Land Office Living Shoreline Site Suitability Model.

Texas Coastal Water Quality Program

Feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns:

Metrics: Clear metrics have yet to be determined and the development of overarching and nonbinding targets for the program could help in selecting projects.

- The BAS panel agrees that Texas has appropriately addressed this comment.

Monitoring: Monitoring is only briefly discussed.

- The BAS panel agrees that Texas has appropriately addressed this comment.

Risks: It is suggested that more information be provided to address risks related to climate change, changing land use, and stakeholder participation and should address the environmental cost-benefits of potential increases in human activities

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Lessons learned: It is suggested that more information is needed to fully evaluate the past successes and failures of similar efforts

- The BAS panel agrees that the response Texas has indicated will appropriately address this comment.

Techniques: A stronger approach for land preservation perhaps through land trusts could be useful.

- The BAS panel agrees that Texas has appropriately addressed this comment.

Panel comments on existing or future synergies with proposed activity:

Mississippi, Florida, Alabama, and Texas agree that synergies can be fostered between the proposed water quality improvement programs across these states, such as by adopting shared metrics, measures, and monitoring methodologies.

Department of the Interior

Ecological Flow Decision-Support for Mobile River and Perdido River Basins (DOI/USGS)

Feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns:

References: Has the sponsor provided reasonable justification that the proposal is based on science that uses peer-reviewed data?

- The BAS panel agrees that DOI has appropriately addressed this comment.

Statistical methods: Requests information on statistical methods and uncertainty quantification.

- The BAS panel agrees that DOI has appropriately addressed this comment.

Justification: Requests more information on the linkages between flow regime and species responses including justification on data resolution.

- The BAS panel agrees that DOI has appropriately addressed this comment.

Applications: Demand for the model and its outputs are not addressed in the proposal.

- The BAS panel agrees that DOI has appropriately addressed this comment.

Coordination: Add milestones for what will be accomplished and how it will be used and list potential approaches for integrating local expertise to ensure model tools can be applied and maintained.

- The BAS panel agrees that DOI has appropriately addressed this comment.

Lessons learned: Proposal does not evaluate the successes of similar projects, in terms of previous model applications or as part of a larger structured decision-making framework.

- The BAS panel agrees that DOI has appropriately addressed this comment.

Past experience: The project team's CVs are needed to determine their suitability for this work, though it is understood that CVs are not requested as part of project proposals.

- The BAS panel agrees that DOI has appropriately addressed this comment.

Panel comments on existing or future synergies with proposed activity:

Alabama has had conversations with DOI/USGS on this work and looks forward to coordinating on a technical level to apply tools such as the one proposed where they may be useful in Perdido Bay.

Tribal Youth Coastal Restoration Program (DOI/BIA)

Feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns:

Coordination: Can activities be combined with NOAA Gulfcorps?

- The BAS panel agrees that DOI has appropriately addressed this comment.

Environmental compliance: Update NEPA for Choctaw and Miccosukee programs

- The BAS panel agrees that DOI has appropriately addressed this comment.

Environmental benefits and risks: Expand information about environmental benefits and risks

- A panelist raises that the presentation may have more clearly presented this information than the revised proposal.
- DOI response: DOI will revisit the proposal to make further revisions as possible to increase clarity.

Leveraging: Update information on leveraged funds

- The BAS panel agrees that DOI has appropriately addressed this comment.

Lessons learned: Update the narrative to discuss successes from tribal FPL1 projects

- The BAS panel agrees that DOI has appropriately addressed this comment.

Panel comments on existing or future synergies with proposed activity:

Panelists raise the potential for students within the proposed program to act as ambassadors to existing tribal youth programs. DOI concurs that the program would seek to coordinate with existing programs when possible, and notes that enhanced capacity-building also occurs through the program by encouraging students to pursue STEM.

State and Offshore Sediment Resources Inventory (DOI/BOEM)

Feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns:

Allocation of funding/spatial extent: Requests information on how the effort will be divided between states given the variation in shoreline spatial extent.

- The BAS panel agrees that DOI has appropriately addressed this comment.

Monitoring QA/QC: Interest in information on monitoring quality assurance and control (though it should be noted that this information is not required at the proposal stage).

- The BAS panel agrees that DOI has appropriately addressed this comment.

Survey uncertainties: Additional information on how uncertainties pertaining to surveys conducted through six cooperative agreements are handled.

- The BAS panel agrees that DOI has appropriately addressed this comment.

Sediment delineation: It would be useful to include documentation on how the sediment delineation is derived and how the uncertainty associated with the sediment type identification and delineation is made available to decision-makers.

- The BAS panel agrees that DOI has appropriately addressed this comment.

Lessons learned: The proposal does not evaluate the successes and failures of similar restoration efforts (though this may not be applicable to tool development and data collection, and past experience of the sponsor is demonstrated).

- The BAS panel agrees that DOI has appropriately addressed this comment.

Other: A panelist asks who will conduct the reconnaissance surveys.

- BOEM response: BOEM would leave it up to the states for state waters, allowing states to contract with survey companies unless they prefer BOEM to contract with survey companies directly.

Other: Will legacy data be made available with newly collected data?

- BOEM response: Yes, legacy data is being gathered now in preparation for potential funding of the proposal, and will be used to identify data gaps which the proposed surveys will be able to fill.

Other: Will cores be taken, or will data collection involve only surveys?

- BOEM response: Sediment cores will be taken.

Panel comments on existing or future synergies with proposed activity:

Coordination between the proposed work and a currently-funded RESTORE project, the Alabama State Expenditure Plan funded Characterization and Delineation of Significant Sand

Resource Areas Essential for Beach Restoration activity, would afford potential efficiencies, such as leveraging ship time between projects.

Decommissioning Onshore Orphaned Energy Facilities on NPS and FWS lands

Feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns:

Tidal flat restoration information: Tidal flat restoration information is insufficiently detailed.

- The BAS panel agrees that DOI has appropriately addressed this comment.

Methodological details: Well plugging operations details and additional details on the contracting process are needed.

- The BAS panel agrees that DOI has appropriately addressed this comment.

Risks and uncertainties: Some risks were not fully evaluated, including helicopter operations (given the potential for very heavy payloads).

- The BAS panel agrees that DOI has appropriately addressed this comment.

Metric targets: Monetary targets for success should be added.

- The BAS panel agrees that DOI has appropriately addressed this comment.

Site selection: Additional information is requested about the number of other wells and sites and if additional evaluation should be included in this project to identify a 2nd phase of activity.

- The BAS panel agrees that DOI has appropriately addressed this comment.

Other: Panelists note that acreage and costs have changed significantly for this proposal as a result of comments from BAS reviewers.

- DOI response: The reduction in cost and total restoration acres are due entirely to changes we made in response to the BAS review. We retained only five acres of tidal flat restoration which is sufficient to implement a trial of restoration methods. The reduction in total cost is a reflection of limiting the scope to just the trial acreage rather than including all the tidal flat acres (~3000) that warrant restoration.

Other: Panelists suggest that conducting a trial program could help provide a better idea of tidal restoration costs.

- DOI response: We agree. It is our expectation that the tidal flat restoration trial as outlined in our modified proposal will provide DOI and other agencies

the information needed to identify successful techniques for tidal flat restoration and that the methods will be well enough understood to provide accurate cost estimates for future tidal flat restoration.

Other: A panelist asks whether there has been previous restoration in Laguna Madre to tidal flats damaged by vehicular traffic.

- DOI response: There have been small-scale efforts to address tidal flat restoration, but there has not been a focused effort to address oil and gas site remediation. If successful, this type of tidal flat restoration could be scaled up and used in other restoration and conservation applications.

Panel comments on existing or future synergies with proposed activity:

Panel members had no further comments on proposal synergies.

Decommissioning OCS Orphaned Energy Facilities in the Gulf of Mexico

Feedback from the panel on the proposal sponsor's presentation of comments and responses to those comments, and any additional BAS concerns:

References: Development of citations regarding methodology.

- The BAS panel agrees that DOI has appropriately addressed this comment.

Methodology: Methods described more granularly as planning moves forward.

- The BAS panel agrees that DOI has appropriately addressed this comment.

Risk mitigation: Remediation for presented risks should be better elaborated on; proposal could contain information on potential crisis management/spill containment; a risk register and HazOp review should be considered.

- The BAS panel agrees that DOI has appropriately addressed this comment.

Past experience: Include experience in remediation of energy facilities in the proposal.

- The BAS panel agrees that DOI has appropriately addressed this comment.

Lessons learned: Reach out to the Texas Railroad Commission for experience and guidance.

- The BAS panel agrees that DOI has appropriately addressed this comment.

Coordination: Inclusion of a project assurance manager unrelated to BSSE or BOEM to act as a technical liaison between the project and BSEE

- The BAS panel agrees that DOI has appropriately addressed this comment.

Budget: Forecast cost breakdowns

- The BAS panel agrees that DOI has appropriately addressed this comment.

Goals and metric targets: Development of hard goals and stretch targets

- The BAS panel agrees that DOI has appropriately addressed this comment.

Data management: Additional project data management

- The BAS panel agrees that DOI has appropriately addressed this comment.

Metrics: Additional metric development

- The BAS panel agrees that DOI has appropriately addressed this comment.

Panel comments on existing or future synergies with proposed activity:

Panel members had no further comments on proposal synergies.

FPL 3b BAS Review Process Comments

In addition to discussions specific to BAS comments on the FPL 3b proposals, the Internal BAS Review Panel also provided comments on the overall FPL 3b BAS Review process. A summary of these comments are captured below.

Support for FPL 3b BAS Review Process: Several proposal sponsors highlighted their appreciation for the majority of the external BAS reviewer comments. The sponsors agreed that the comments helped to improve the overall quality of the proposals, in some cases resulting in the incorporation of substantial revisions to their proposals.

BAS review questions revisions: The FPL 3b BAS Review questions answered by external reviewers were revised and approved by the RESTORE Council Steering Committee in May 2019. While the panelists felt the current review questions helped to evaluate the application of BAS in the FPL 3b proposals, the following concerns were raised:

- Based on the feedback received from reviewers, it became clear that the external BAS review questions were best suited to evaluate project proposals rather than program proposals.¹ Several panelists recommended considering further revisions to the BAS review questions for future FPLs in order to better facilitate evaluation of the use of BAS in program proposals (as well as project proposals).
- In regards to BAS review questions, one panelist also suggested that as project-specific workplans are submitted for funded FPL 3b programs, the BAS review questions could also be better tailored for a BAS review of such workplans.
- Some panelists also highlighted the multitude of questions regarding risk and uncertainty that are currently included on the external BAS review form, and suggested that future revisions could consider whether as many risk and uncertainty questions are warranted or should be consolidated.

BAS Review process for programs: Because the BAS review process for Council-funded programs with unidentified projects differs from the process for single projects, panelists recommended that clarification be provided regarding when BAS reviews of specific projects under a program will take place. Council staff will provide those details, as well as other information regarding public transparency and comment opportunities, in the draft FPL 3b document.

¹ The Council's [2016 Comprehensive Plan Update](#), provided definitions of the terms "project" and "program":

Project: A single ecosystem restoration and/or conservation activity that cannot be separated into stand-alone sub-activities.

Program: A suite of intrinsically-linked restoration and/or conservation activities that must be implemented together in order to achieve the desired outcome. A program should generally be covered by one unified Council environmental compliance review and should have a common set of performance measures to effectively assess and measure outcomes.